

Fig. 3A

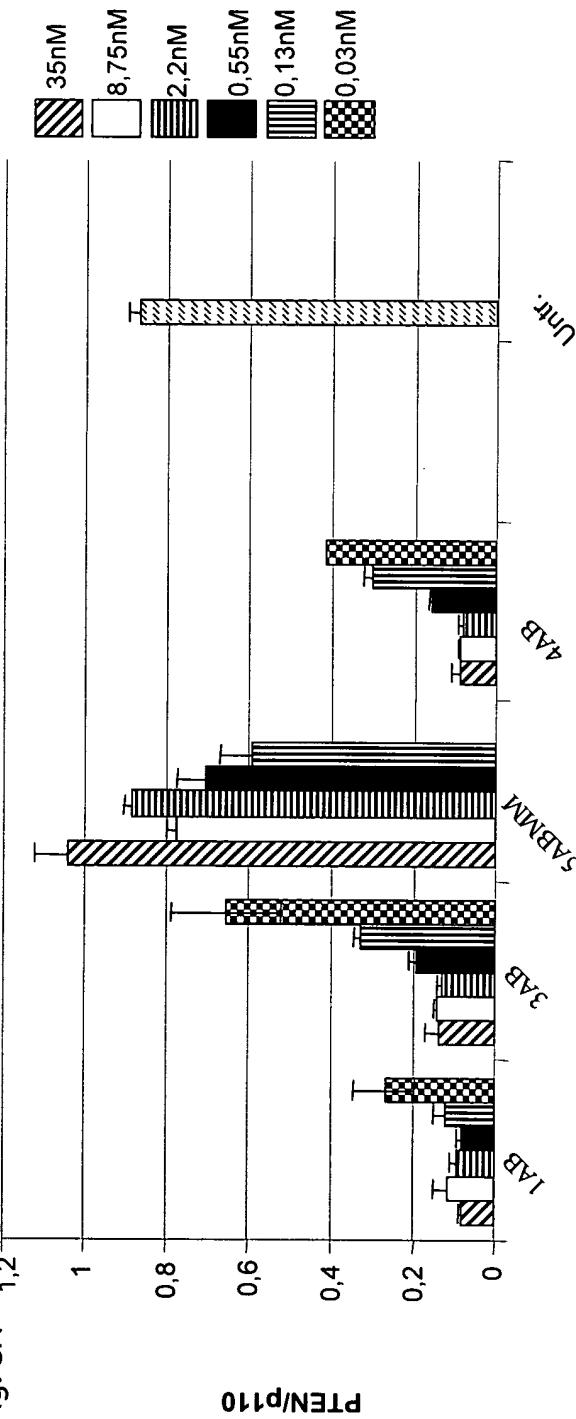
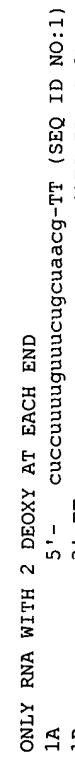


Fig. 3B



ONLY RNA WITH NH2 GROUPS AT EACH 3' END AND 2 DEOXY

3A	5' - cuccuuuuguuucugcuacg-TT-NH2 (SEQ ID NO:3)
3B	3' - NH2-TT-gaggaaaacaaagacgauugc (SEQ ID NO:4)

ONLY RNA WITH INVERTED ABASIC AND 2 TT

4.	16153-iB (iB at the 3' ends)
4A	5' - cuccuuuuguuucugcuacg-TT-iB (SEQ ID NO:5)
4B	3' - iB-TT-gaggaaaacaaagacgauugc (SEQ ID NO:6)

ONLY RNA WITH 2 DEOXY AT EACH END

5	5' - cucauuuuuuugugcucacg-TT (SEQ ID NO:7)
5BMM	3' - TT-gaggaaaagaaacacgauugc (SEQ ID NO:8)

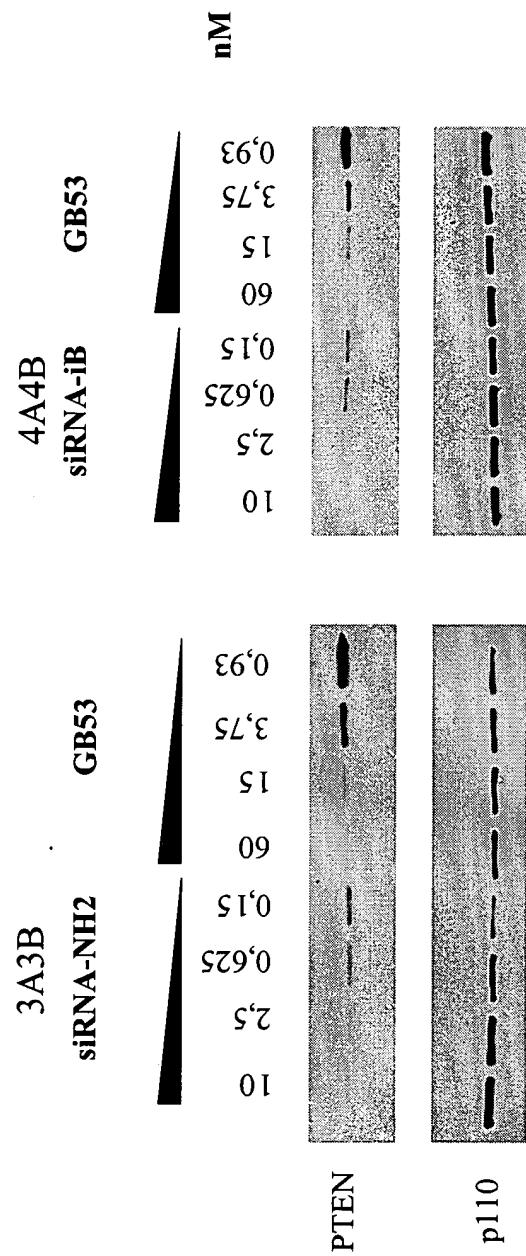


Fig. 3C

Fig. 4A

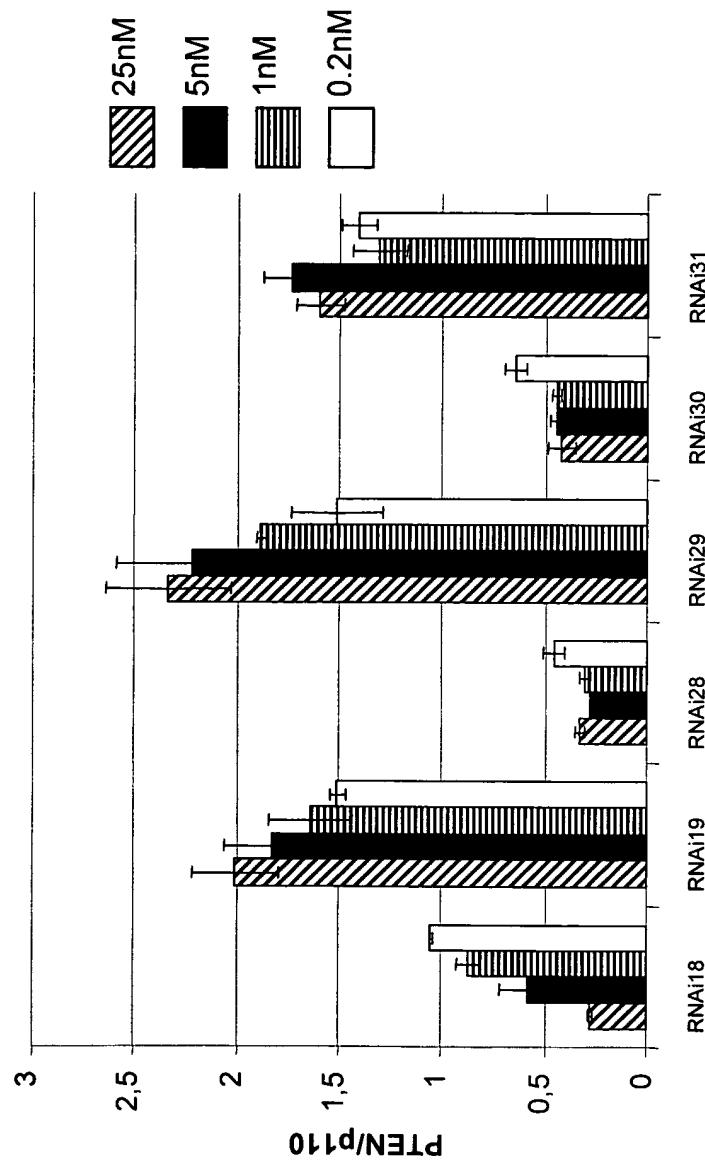


Fig. 4B

18A	5' - cuccuuuuuuuucugcuuacg-TT (SEQ ID NO: 9)
18B	3' - TT-gaggaaaacaagacgauugc (SEQ ID NO: 10)
19A (MM)	5' - cucauuuuuuuugugcucacg-TT (SEQ ID NO: 11)
19B (MM)	3' - TT-gaguaaaaaggaaacacgauugc (SEQ ID NO: 12)
28A	5' - cuccuuuuuuuucugcuuacg- (SEQ ID NO: 13)
28B	3' - gaggaaaacaagacgauugc- (SEQ ID NO: 14)
29A (MM)	5' - cucauuuuuuuugugcucacg- (SEQ ID NO: 15)
29B (MM)	3' - gaguuuaggaaaacacgauugc (SEQ ID NO: 16)
30A	5' - TT-cuccuuuuuuuucugcuuacg- (SEQ ID NO: 17)
30B	3' - -gaggaaaacaagacgauugc-TT (SEQ ID NO: 18)
31A (MM)	5' - TT-cucauuuuuuugugcucacg- (SEQ ID NO: 19)
31B (MM)	3' - -gaguaaaaaggaaaacacgauugc-TT (SEQ ID NO: 20)

Fig. 5A

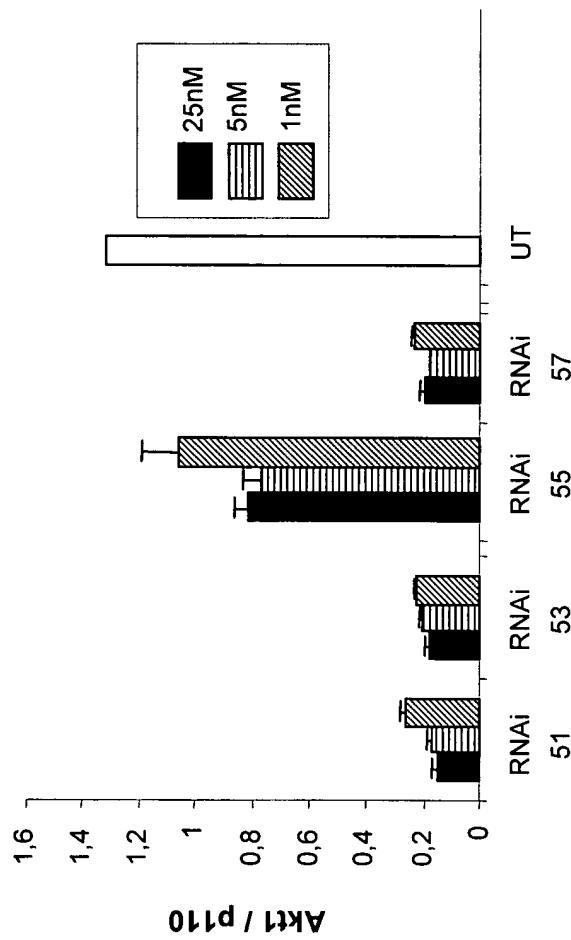


Fig. 5B

51A	5'	-ucuuugauquacuccccucg-uuu	(SEQ ID NO:21)	19nt 3' uu
51B	3'	-uu-agaacuacaugaggaggac-	(SEQ ID NO:22)	
53A	5'	-ucuuugauquacuccccucg-uuu	(SEQ ID NO:23)	19nt 3' seq. specific RNA
53B	3'	-cc-agaacuacaugaggaggac-	(SEQ ID NO:24)	
55A	5'	-cuuugauquacuccccuc-gu	(SEQ ID NO:25)	17nt 3' seq. specific RNA
55B	3'	-ca-gaacuacaugaggaggag-	(SEQ ID NO:26)	
57A	5'	-ucuuugauquacuccccucg-TT	(SEQ ID NO:27)	19nt 3' seq. specific DNA
57B	3'	-CC-agaacuacaugaggaggac-	(SEQ ID NO:28)	

Fig. 6A

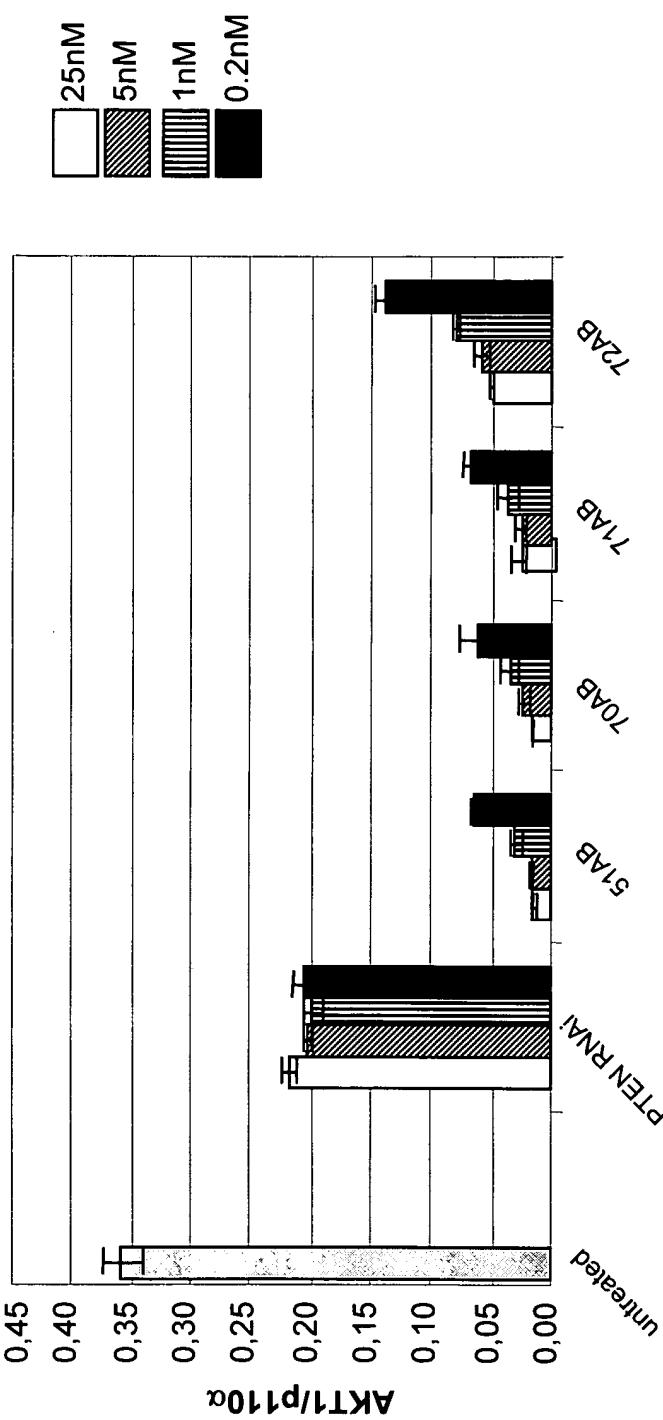


Fig. 6B 19nt (3',uu)

51A 5' - -ucuuuuauguaacuccccucug-uu (SEQ ID NO:29)  
 51B 3' - uu-agaacuacaucaugaggaggac- (SEQ ID NO:30)

19nt (3'TT)

70A 5' - -ucuuuuauguaacuccccucug-TT (SEQ ID NO:31)  
 70B 3' - uu-agaacuacaucaugaggaggac- (SEQ ID NO:32)

19nt with 1MM on both sites

71A 5' - -acuuuuauguaacuccccucugc-TT (SEQ ID NO:33)  
 71B 3' - TT-ugaacuacaucaugaggaggac- (SEQ ID NO:34)

19nt with 2MM on both sites

72A 5' - -aguuuuauguaacuccccucugc-TT (SEQ ID NO:35)  
 72B 3' - TT-ucaacuacaucaugaggaggac- (SEQ ID NO:36)

Akt1	1A	5' -	ucuuuauauacuccuccuug-uu (SEQ ID NO: 37)	19mer
Akt1	1B	3' -	uu-agaacuacauaugggggc (SEQ ID NO: 38)	
Akt1	2A	5' -	ucuuuauauacuccuccuug-tt (SEQ ID NO: 39)	19mer
Akt1	2B	3' -	cc-agaacuacauaugggggc (SEQ ID NO: 40)	
Akt1	4A	5' -	ucuuuauauacuccuccuug-TT (SEQ ID NO: 41)	19mer
Akt1	4B	3' -	CC-agaacuacauaugggggc (SEQ ID NO: 42)	
Akt1	5A	5' -	ucuuuauauacuccuccuug-TT (SEQ ID NO: 43)	19mer
Akt1	5B	3' -	TT-agaacuacauaugggggc (SEQ ID NO: 44)	
Akt1	3A	5' -	cuugauauacucccccuc-gt (SEQ ID NO: 45)	17mer
Akt1	3B	3' -	ca-gaaacuacauaugggggag (SEQ ID NO: 46)	
Akt1	6A	5' -	▼ cuuuuauauacuccuccuuc-TT (SEQ ID NO: 47)	19mer(2MM)
Akt1	6B	3' -	TT-ugaacuacauaugggggagg (SEQ ID NO: 48)	
Akt1	7A	5' -	▼ aguugauauacuccuccuugc-TT (SEQ ID NO: 49)	19mer(4MM)
Akt1	7B	3' -	TT-ucaacuacauaugggggacg (SEQ ID NO: 50)	
PTEN	1A	5' -	cuccuuuuuuuucugcuuacg-TT (SEQ ID NO: 51)	21mer
PTEN	1B	3' -	TT-gaggaaaaacaaagacgauugc (SEQ ID NO: 52)	

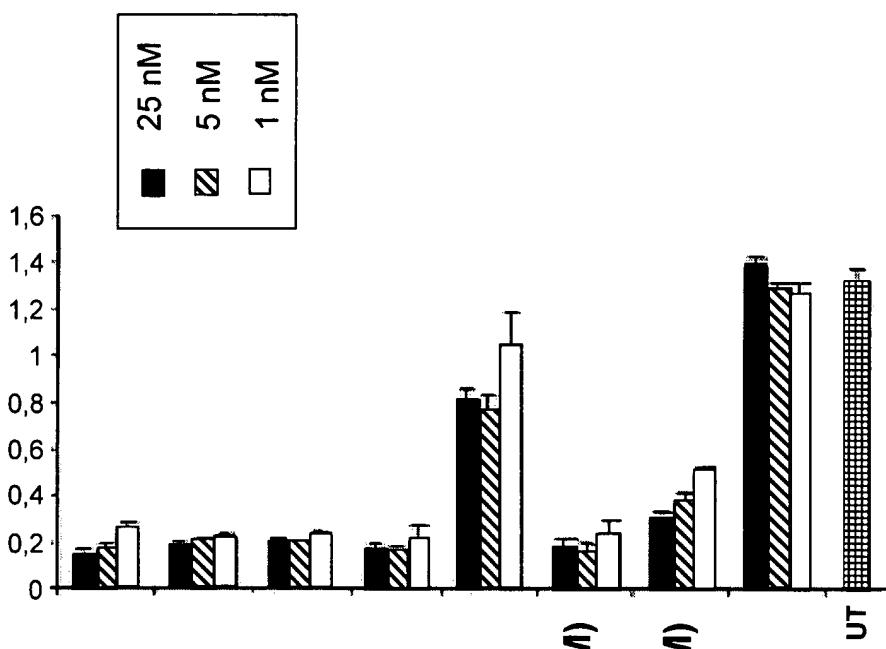


FIG. 7A

Fig. 7C

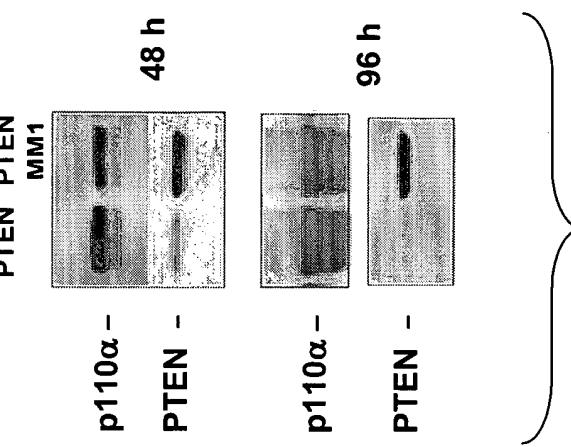


Fig. 7B

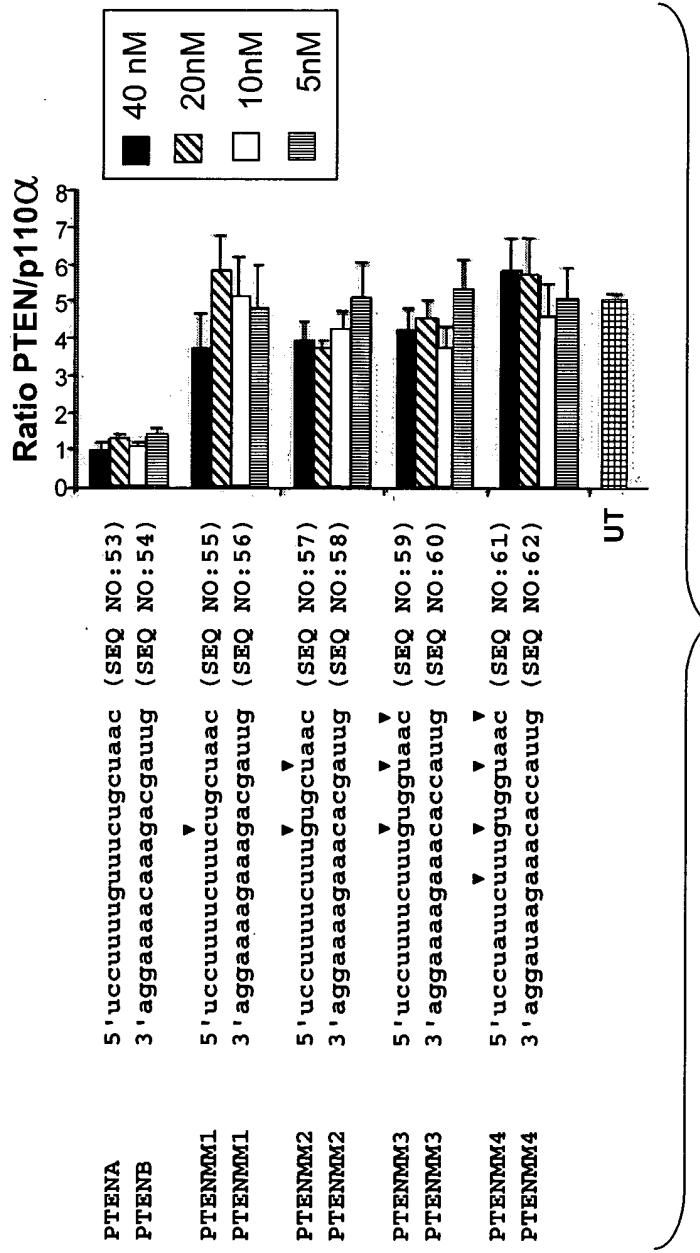


Fig. 8A  
Serum 0' 15' 120'



Fig. 8B

Tuschl	5' -	3' -
18A	cuccuuuuuguuucuguaacg-TT (SEQ ID NO:9)	
18B		3' -TT-gaggaaaaacaaagcgaauugc (SEQ ID NO:10)
inverted abasic on both ends and 2TT		
24A	5' -	iB-cuccuuuuuguuucuguaacg-TT-iB (SEQ ID NO:63)
24B	3' -iB-TT-gaggaaaaacaaagcgaauugc-iB (SEQ ID NO:64)	
NH2groups at both ends AND 2-deoxy		
26A	5' -	NH2-cuccuuuuuguuucuguaacg-TT-NH2 (SEQ ID NO:65)
26B	3' -NH2-TT-gaggaaaaacaaagcgaauugc-NH2 (SEQ ID NO:66)	
2'-O-Methyl modified with 2-deoxy at each end		
79A	5' -	cuccuuuuuguuucuguaacg-TT (SEQ ID NO:67)
79B	3' -	TT-gaggaaaaacaaagcgaauugc (SEQ ID NO:68)
Only RNA		
28A	5' -	cuccuuuuuguuucuguaacg-TT (SEQ ID NO:13)
28B	3' -	gaggaaaaacaaagcgaauugc (SEQ ID NO:14)
Only RNA with 2-deoxy at each 5' end		
30A	5' -TT-cuccuuuuuguuucuguaacg-	(SEQ ID NO:17)
30B	3' -	gaggaaaaacaaagcgaauugc-TT (SEQ ID NO:69)
NH2 groups at each 3'end and 2-deoxy		
3A	5' -	cuccuuuuuguuucuguaacg-TT-NH2 (SEQ ID NO:70)
3B	3' -NH2-TT-gaggaaaaacaaagcgaauugc- (SEQ ID NO:71)	

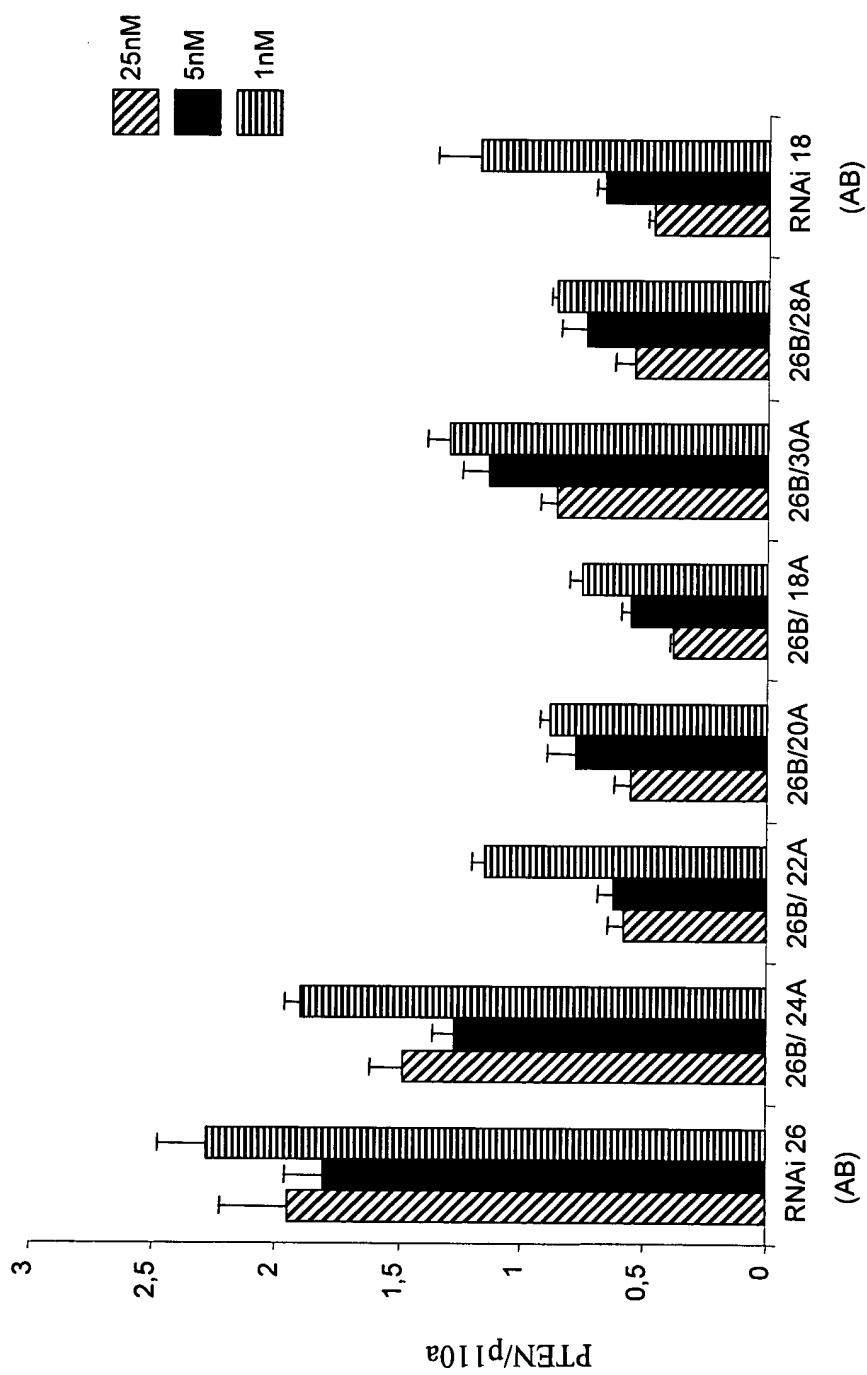


Fig. 9A

**FIG. 9B**

26A	5'-	NH2-cuccuuuuuuucugcuaacg-TT-NH2 (SEQ ID NO: 72)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
24A	5'-	iB-cuccuuuuuuucugcuaacg-TT-iB (SEQ ID NO: 73)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
22A	5'-	cuccuuuuuuucugcuaacg-TT-iB (SEQ ID NO: 74)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
20A	5'-	cuccuuuuuuucugcuaacg-TT-NH2 (SEQ ID NO: 75)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
18A	5'-	cuccuuuuuuucugcuaacg-TT (SEQ ID NO: 78)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
30A	5'-	TT-cuccuuuuuuucugcuaacg- (SEQ ID NO: 76)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
28A	5'-	cuccuuuuuuucugcuaacg- (SEQ ID NO: 80)
26B	3'-	NH2-TT-gagaaaaacaaagacgauugc-NH2 (SEQ ID NO: 77)
18A	5'-	cuccuuuuuuucugcuaacg-TT (SEQ ID NO: 78)
18B	3'-	TT-gagaaaaacaaagacgauugc (SEQ ID NO: 79)

**FIG. 9C**

-nnnnnnnnnnnnnnnn-n	-tt	
NH2-nnnnnnnnnnnnn-n-NH2		functional
-nnnnnnnnnnnnnn-n-tt-NH2		
NH2-nnnnnnnnnnnnn-n-NH2		functional
NH2-nnnnnnnnnnnnn-n-tt-NH2		not functional
tt-nnnnnnnnnnnnn-n-tt		

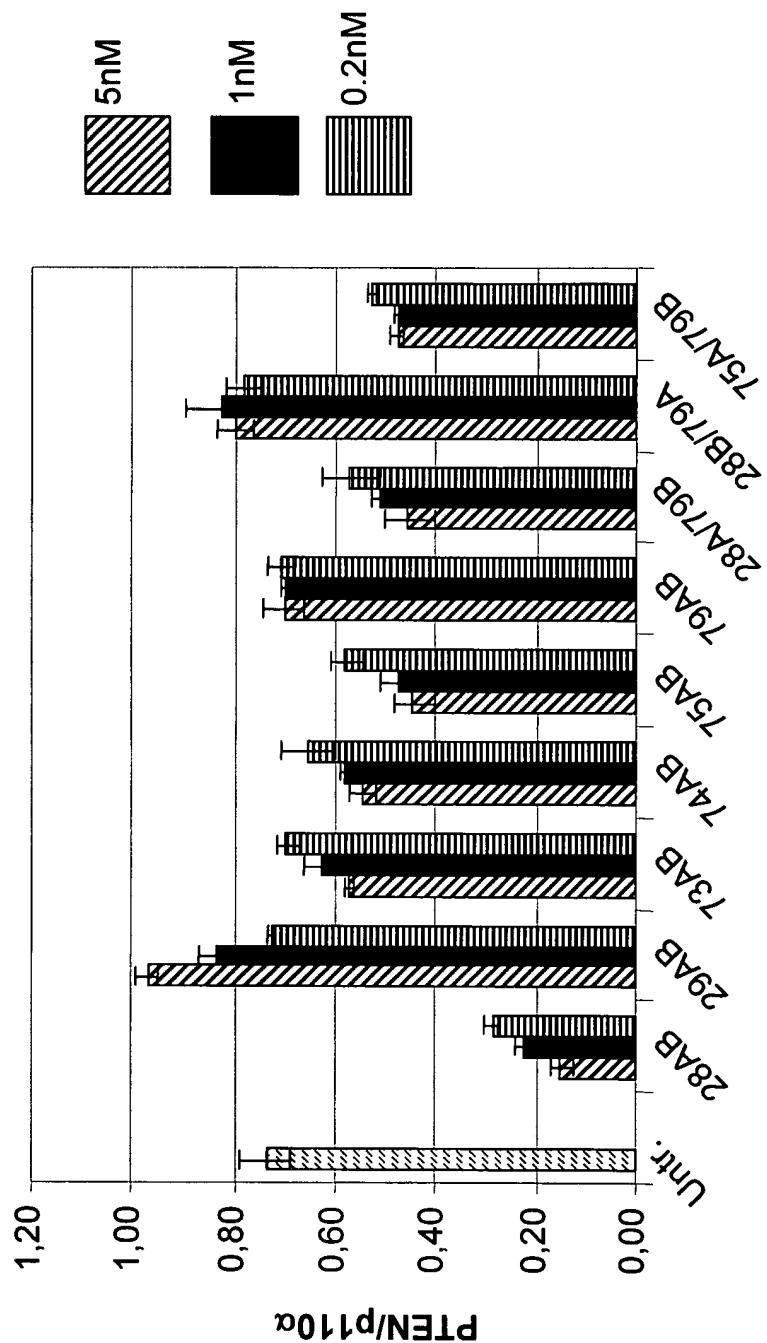
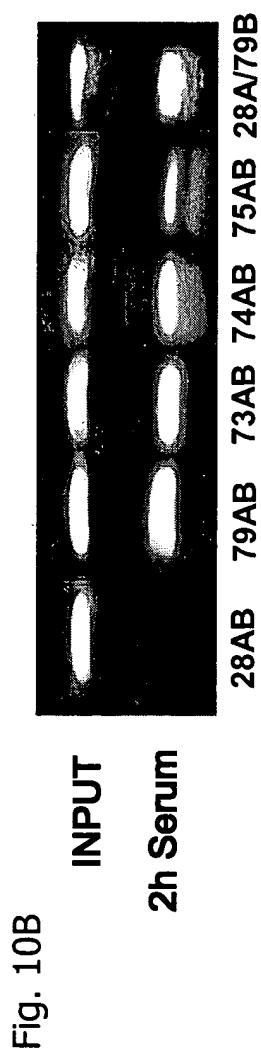


Fig. 10A

Fig. 10C RNA **Bold** Italics represents 2'-O-methyl

28A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>gaggaaaaacaaagacgauugc</i>	(SEQ ID NO:13) (SEQ ID NO:14)
29A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>gaggaaaaacaaacacgauugc</i>	(SEQ ID NO:81) (SEQ ID NO:82)
29B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>gaggaaaaacaaacacgauugc</i>	(SEQ ID NO:81) (SEQ ID NO:82)
73A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>gaggaaaaacaaagacgauugc</i>	(SEQ ID NO:83) (SEQ ID NO:84)
73B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:83) (SEQ ID NO:84)
74A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:85) (SEQ ID NO:86)
74B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:85) (SEQ ID NO:86)
75A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:87) (SEQ ID NO:88)
75B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:87) (SEQ ID NO:88)
79A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:89) (SEQ ID NO:90)
79B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:89) (SEQ ID NO:90)
28A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:80) (SEQ ID NO:90)
79B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:89) (SEQ ID NO:14)
79A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:89) (SEQ ID NO:14)
28B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:87) (SEQ ID NO:90)
75A	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:87) (SEQ ID NO:90)
79B	5' - <b>cuccuuuuuuucugcuuaacg-</b> 3' - <i>-gaggaaaaacaaacaaagacgauugc</i>	(SEQ ID NO:87) (SEQ ID NO:90)

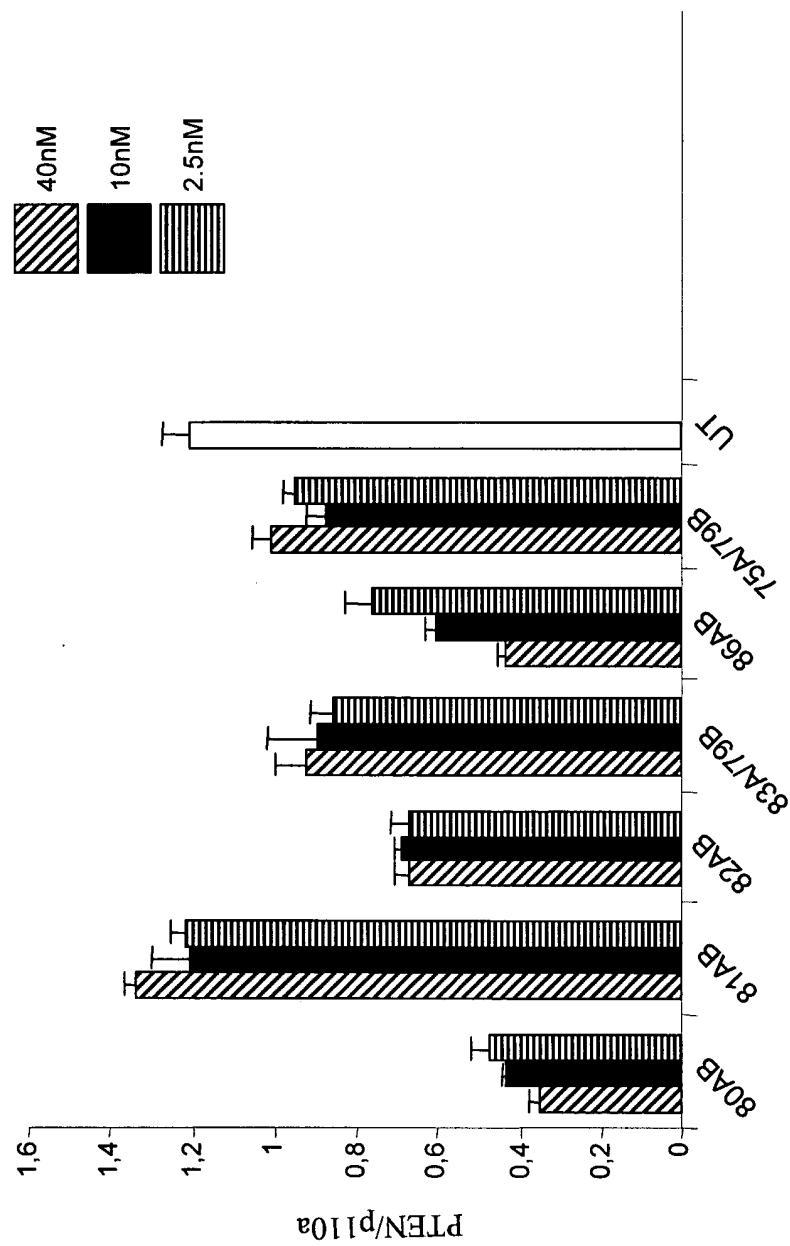


Fig. 11A

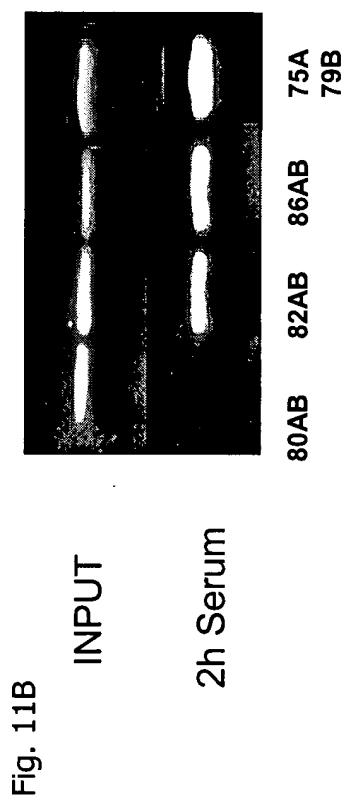


Fig. 11C RNA Bold Italics represents 2' O-methyl						
80A	5'- <b>cuccuuuuuuucugcuuacg-</b>	(SEQ ID NO:91)				
80B	3'- <i>-gaggaaaacaaggacgauugc-</i>	(SEQ ID NO:92)				
81A	5'- <b>cuccuuuuuuucugcuuacg-</b>	(SEQ ID NO:93)				
81B	3'- <i>-gaggaaaacaaggacgauugc-</i>	(SEQ ID NO:94)				
82A	5'- <b>cuccuuuuuuucugcuuacg-</b>	(SEQ ID NO:95)				
82B	3'- <i>-gaggaaaacaaggacgauugc-</i>	(SEQ ID NO:96)				
83A	5'- <b>cuccuuuuuuucugcuuacg-</b>	(SEQ ID NO:97)				
79B	3'- <i>-gaggaaaacaaggacgauugc-</i>	(SEQ ID NO:90)				
86A	5'- <b>cuccuuuuuuucugcuuacg-</b>	(SEQ ID NO:98)				
86B	3'- <i>-gaggaaaacaaggacgauugc-</i>	(SEQ ID NO:99)				
75A	5'- <b>cuccuuuuuuucugcuuacg-</b>	(SEQ ID NO:100)				
79B	3'- <i>-gaggaaaacaaggacgauugc-</i>	(SEQ ID NO:90)				

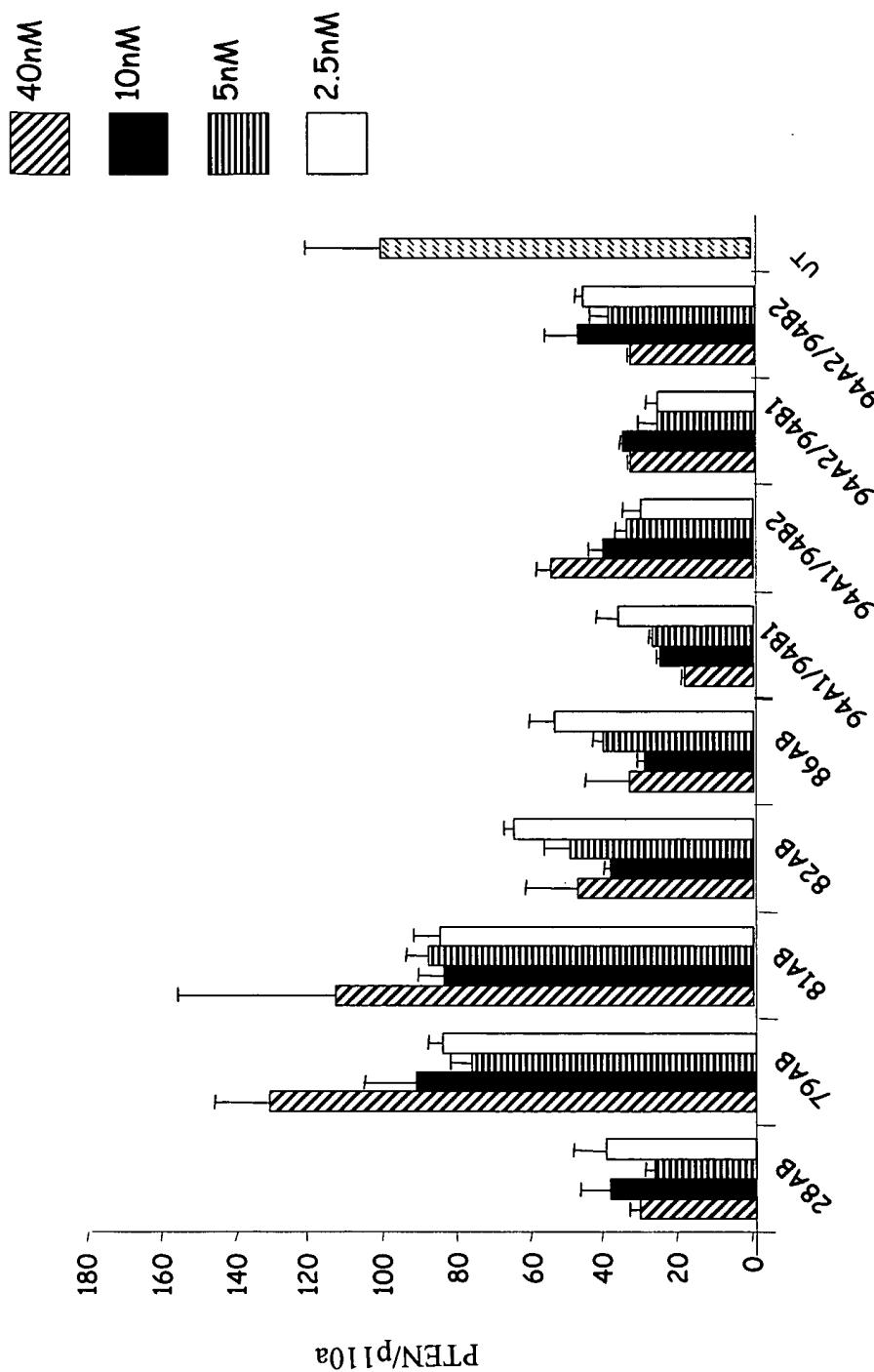
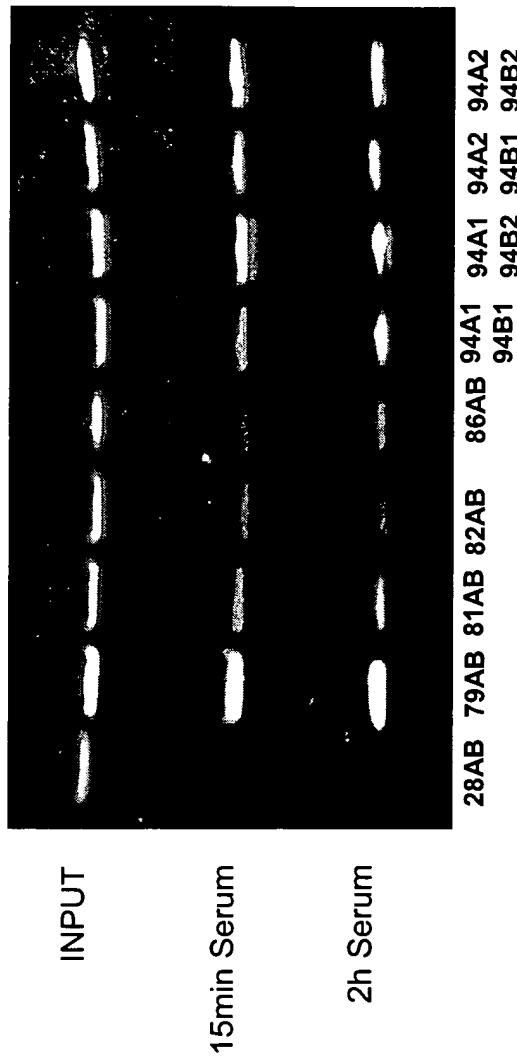


Fig. 12A

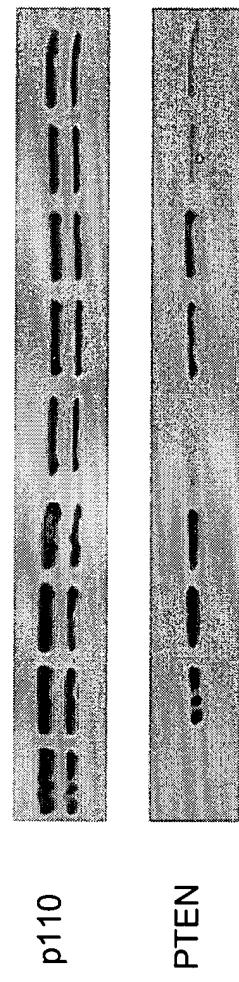
RNA Bold Italics represents 2' O-methyl	
28A	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:101)
28B	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:102)
79A	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:103)
79B	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:104)
81A	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:105)
81B	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:106)
82A	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:107)
82B	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:108)
86A	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:109)
86B	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:110)
94A1	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:111)
94B1	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:112)
94A1	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:113)
94B2	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:114)
94A2	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:115)
94B1	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:116)
94A2	5'- <i>cuccuuuuuuucugcuaacg-</i> (SEQ ID NO:117)
94B2	3'- <i>gaggaaaaacaaggacgauugc-</i> (SEQ ID NO:118)

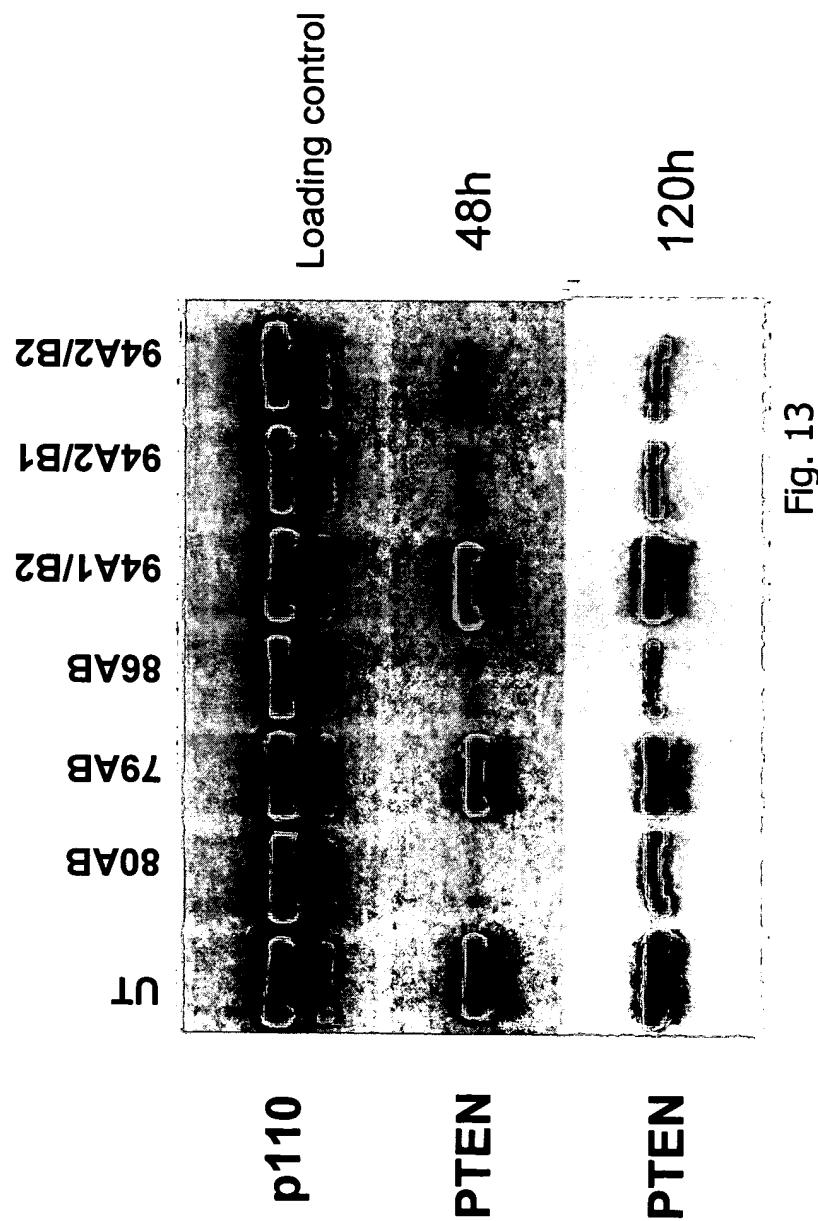
Fig. 12B

**Fig. 12C**



**Fig. 12D**





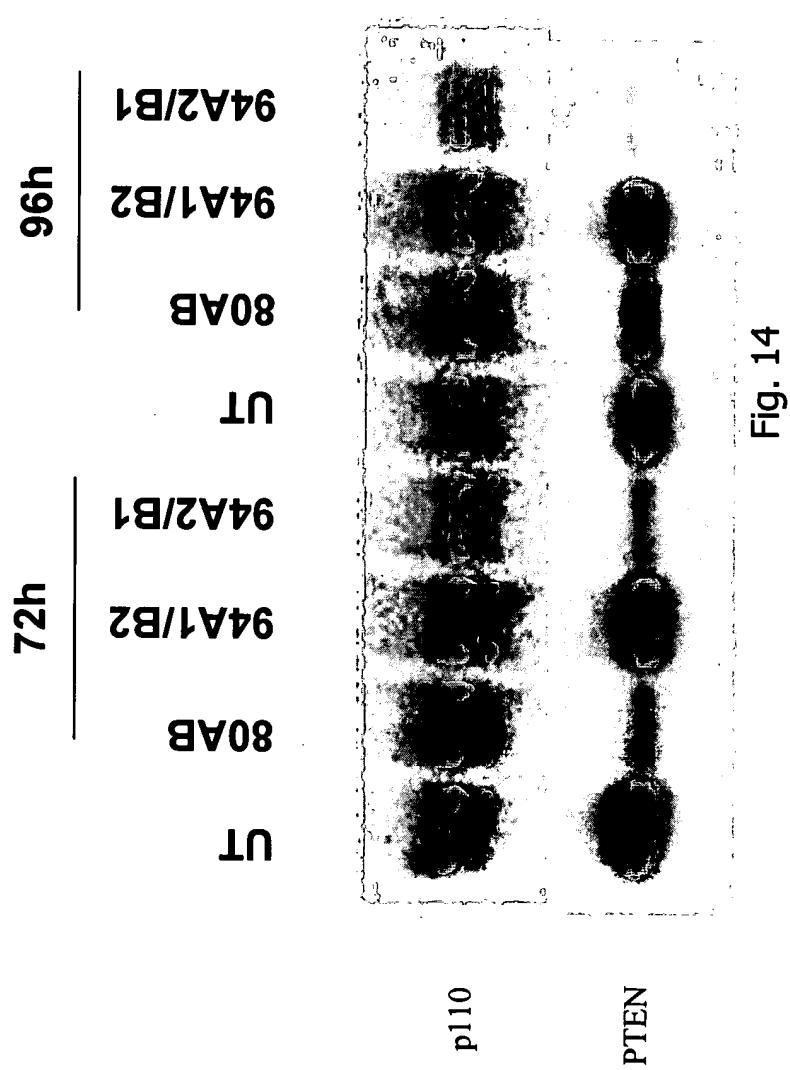


Fig. 14

FIG. 15A

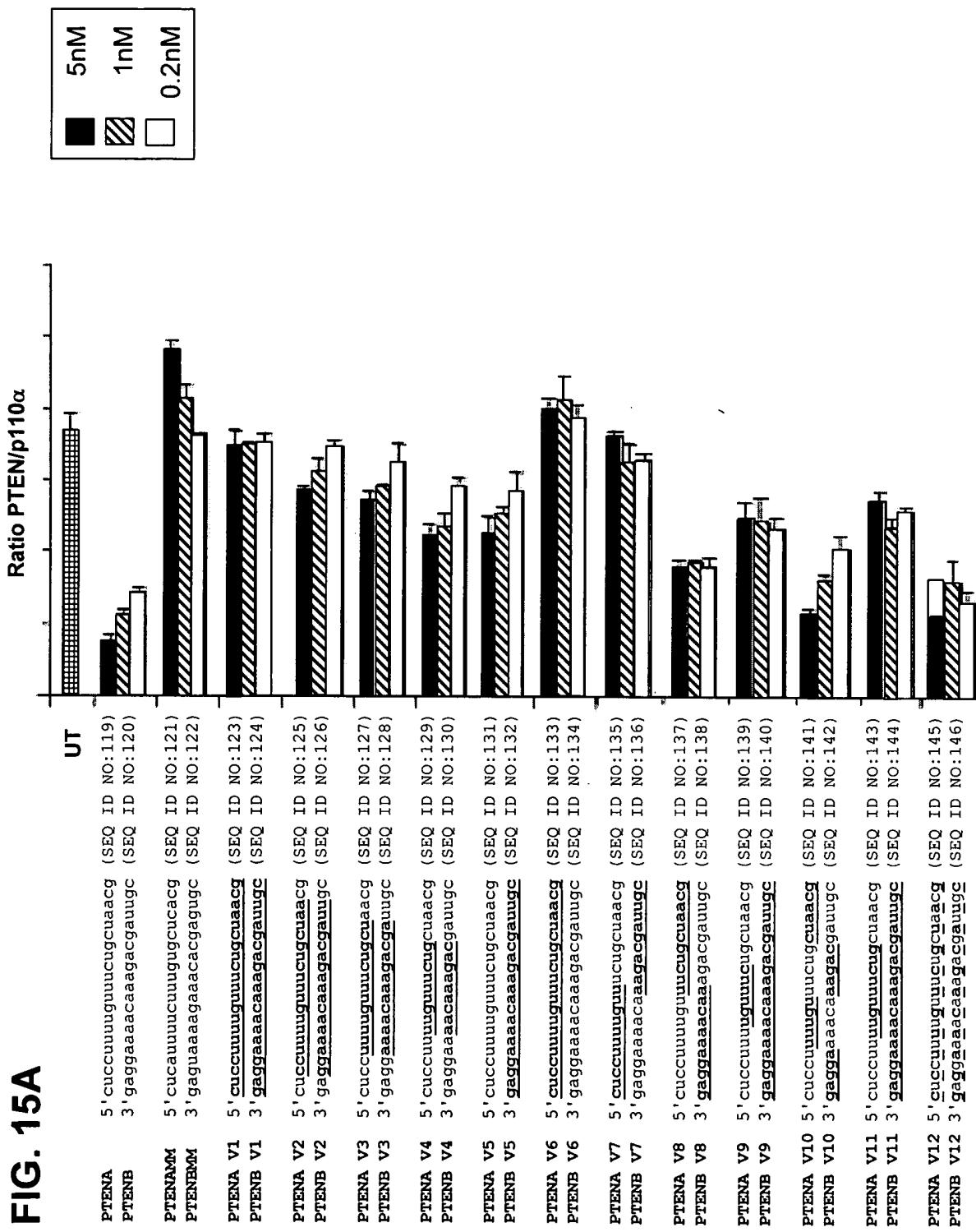


Fig. 15B

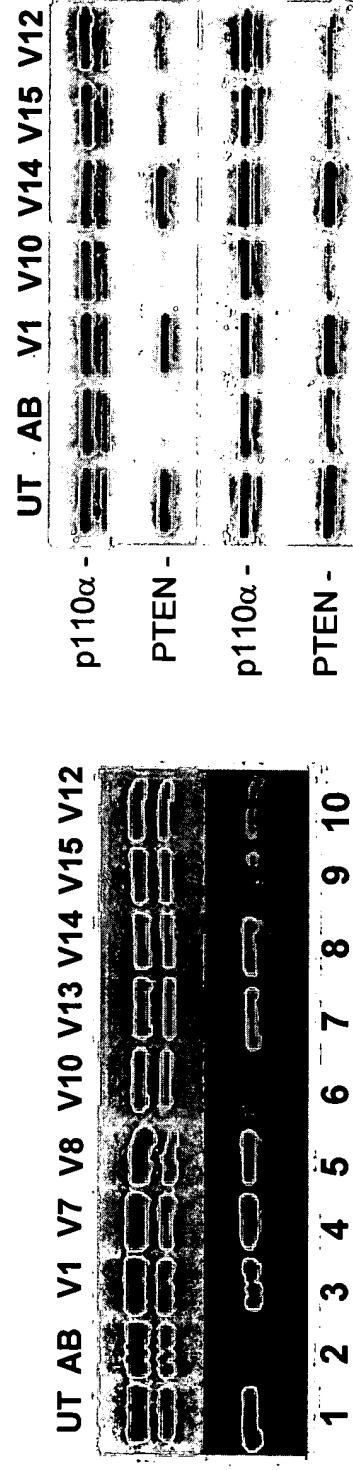
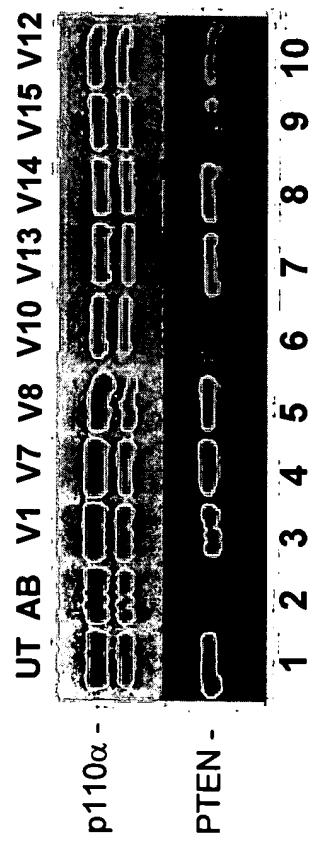


Fig. 15C



1 2 3 4 5 6 7

Akt1A V1	Akt1B V1	5'ucuu <u>gaugua</u> acuccccc <u>ucg</u> -TT (SEQ ID NO:153) 5'TT-agaacuacau <u>gggg</u> gc (SEQ ID NO: 154)	UT	V2	V3	V4	V5	V6
Akt1A V2	Akt1B V2	5'ucuu <u>gaugua</u> acuccccc <u>ucg</u> (SEQ ID NO:155) 3'agaacuacau <u>gggg</u> gc (SEQ ID NO:156)	P110 $\alpha$ -					
Akt1A V3	Akt1B V3	5'ucuu <u>gaugua</u> acuccccc <u>ucg</u> (SEQ ID NO:157) 3'aga <u>acuacau</u> gggg <u>gc</u> (SEQ ID NO:158)	Akt 1					
Akt1A V4	Akt1B V4	5'ucuu <u>gaugua</u> acuccccc <u>ucg</u> (SEQ ID NO:159) 3'aga <u>acuacau</u> gggg <u>gc</u> (SEQ ID NO:160)	Akt 2					
Akt1A V5	Akt1B V5	5'ucuu <u>gaugua</u> acuccccc <u>ucg</u> (SEQ ID NO:161) 3'aga <u>acuacau</u> gggg <u>gc</u> (SEQ ID NO:162)	P*. Akt					
Akt1A V6	Akt1B V6	5'ucuu <u>gaugua</u> acuccccc <u>ucg</u> (SEQ ID NO:163) 3'aga <u>acuacau</u> gggg <u>gc</u> (SEQ ID NO:164)						

Fig. 16A

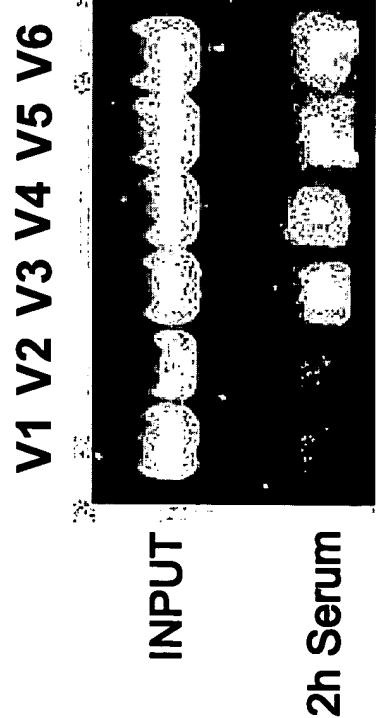


Fig. 16B

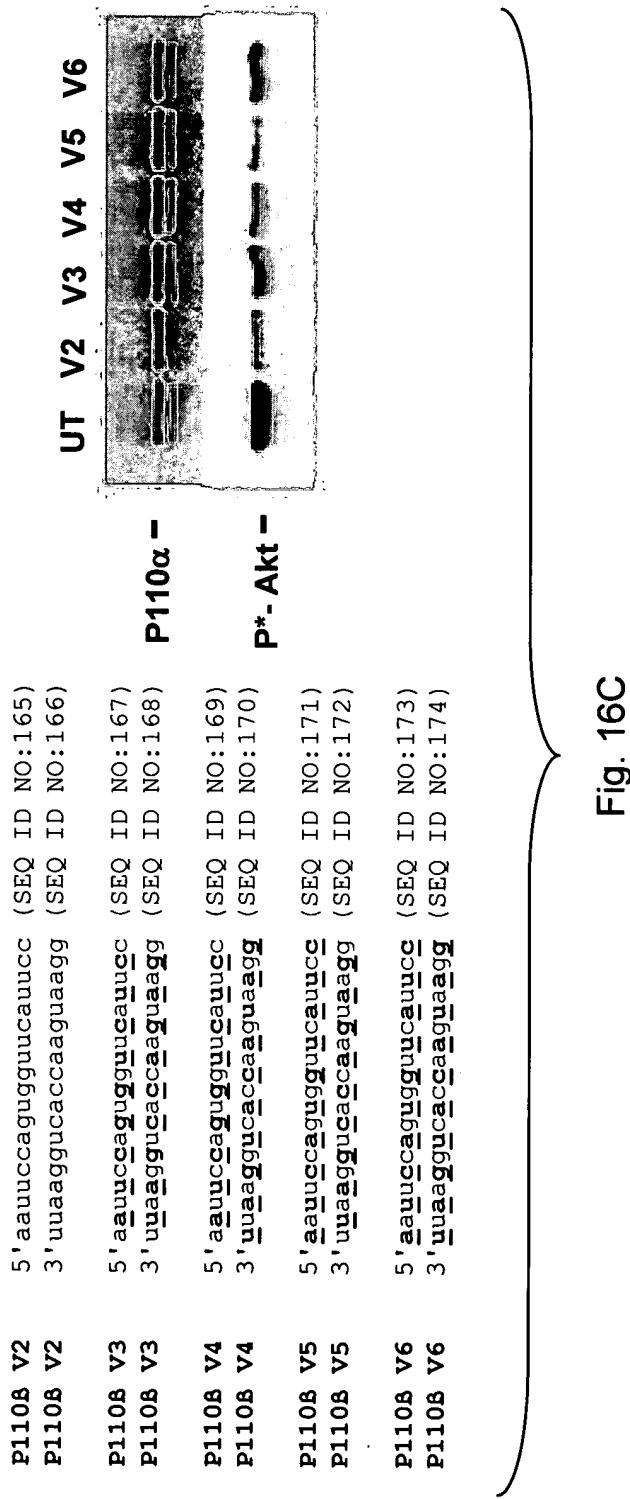


Fig. 16C

Fig. 17A

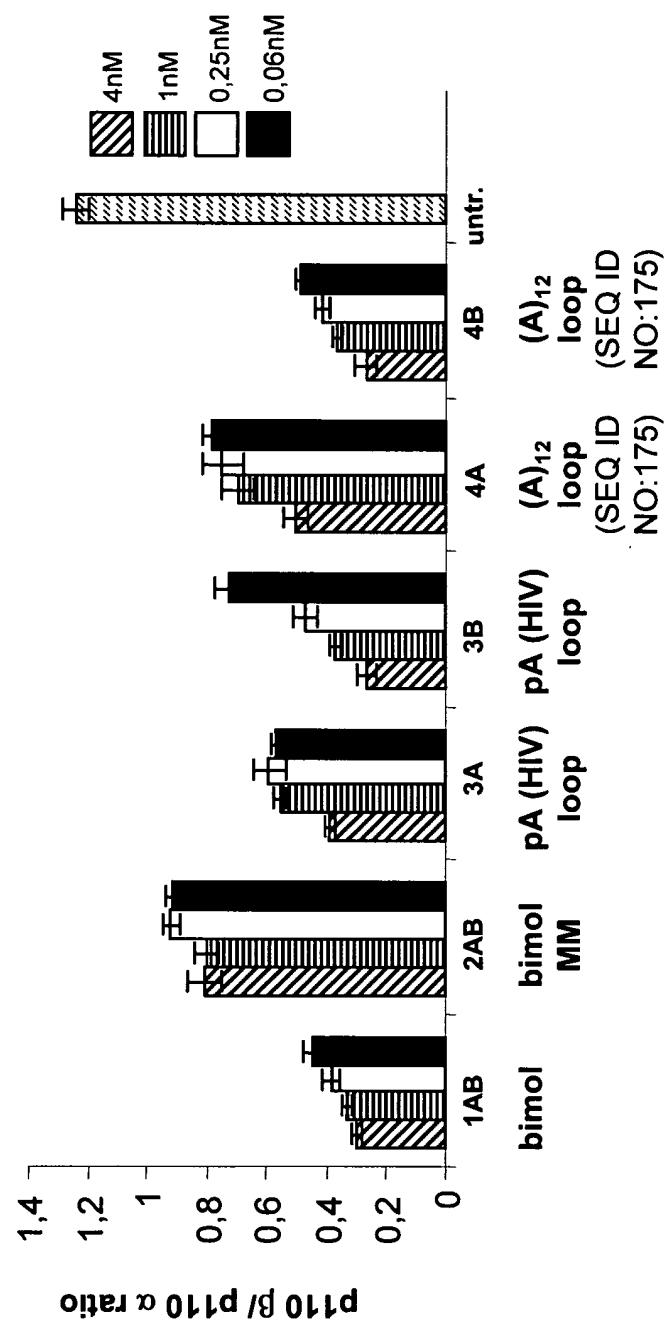
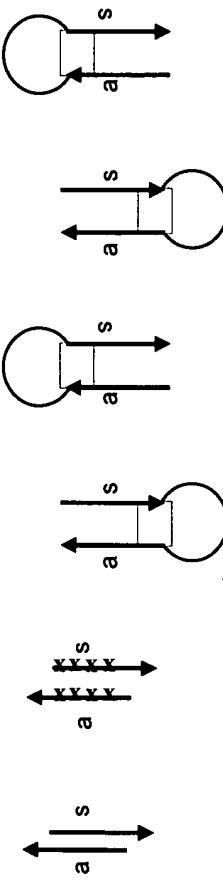


Fig. 17B



5 nM  
1 nM  
0,2 nM

Fig. 18A

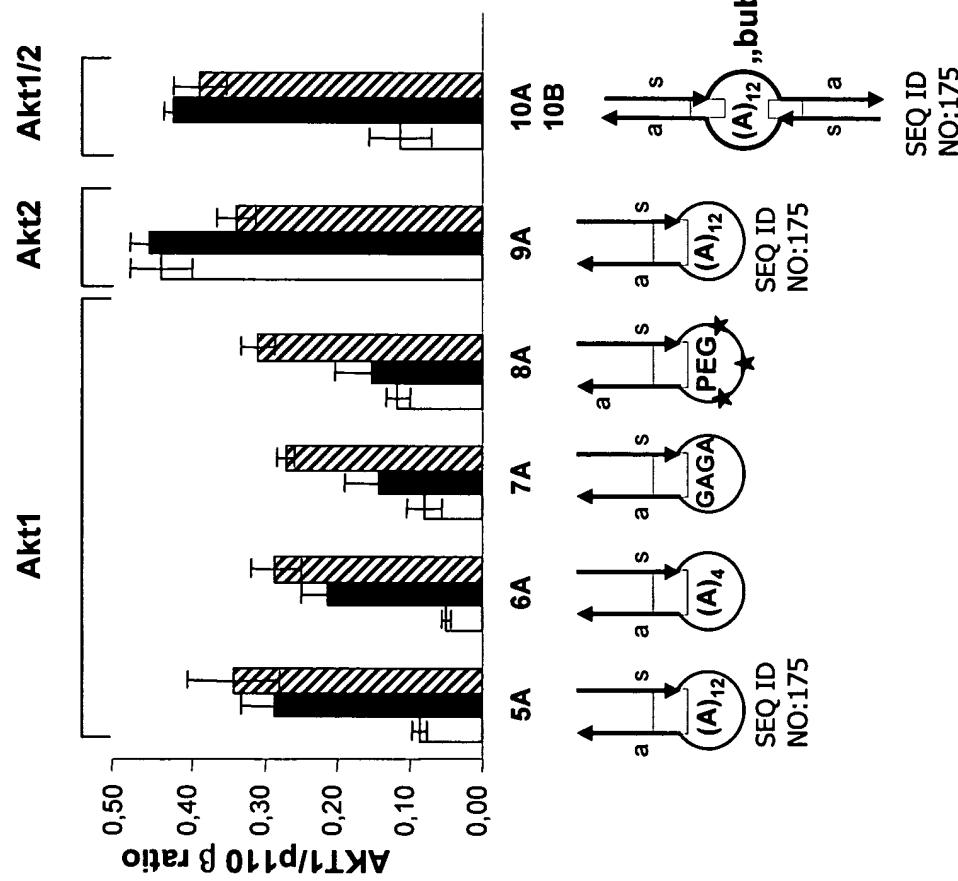
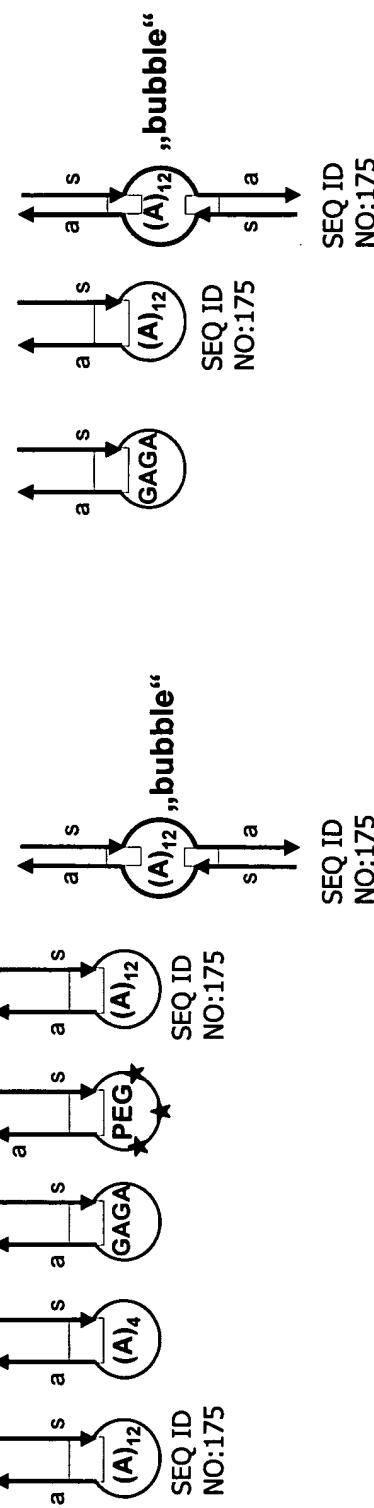
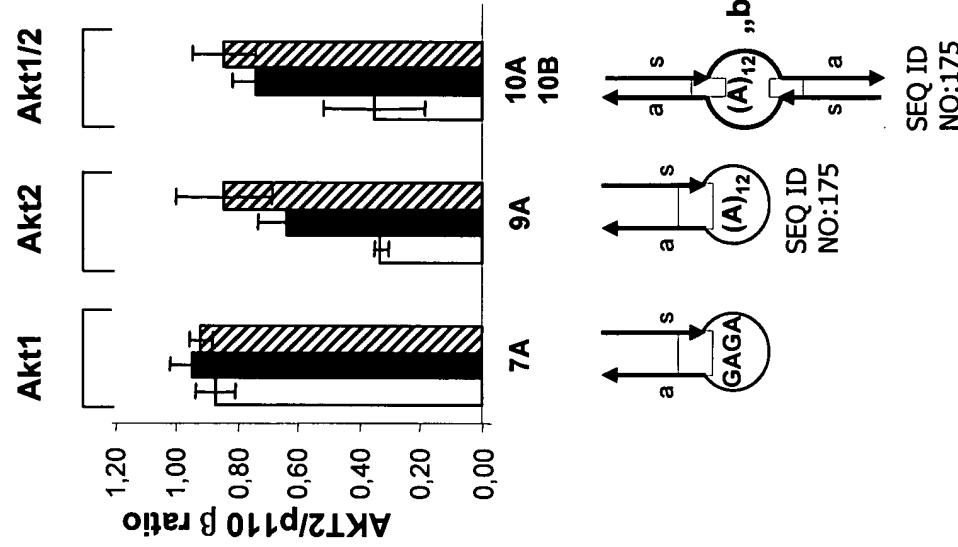


Fig. 18B



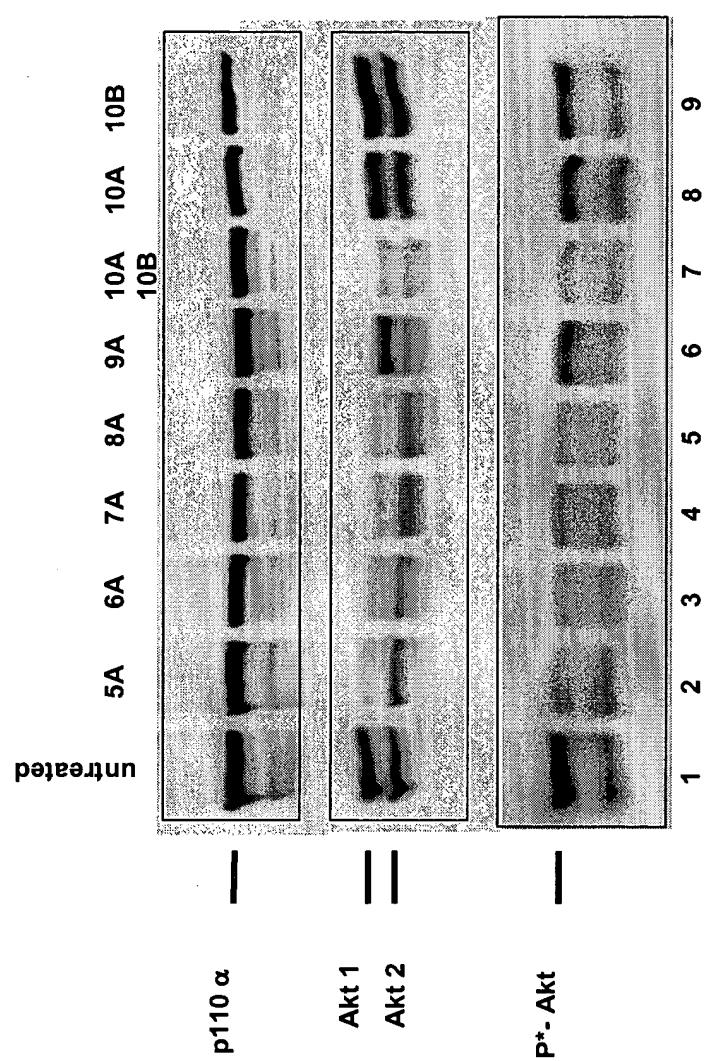


Fig. 18C